ADM 3350 ***A, B, & C*** **Fall 2018**

Corporate Finance

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HOMEWORK ASSIGNMENT I (100 points total)

Chapter 27 (Total points: 24 points)

Problem 1.27

Consider the following financial statement information for the Bulldog Icers Corp.:

Item	Beginning		Ending
Inventory	$ 21,017		$ 23,875
Accounts receivable	26,521		32,301
Accounts payable	19,296		22,434
Net sales		$ 342,000	
Cost of goods sold		175,162	

Calculate the operating and cash cycles. Show, explain and interpret your calculations/results.

Problem 2.27

The Litzenberger Co. has projected the following quarterly sales amounts for the coming year:

	Q1	Q2	Q3	Q4
Sales	$780	$670	$910	$1,050

a. Accounts receivable at the beginning of the year are $295. Litzenberger has a 45-day collection period. Calculate cash collections in each of the four quarters by completing the

following:

	Q1	Q2	Q3	Q4
Beginning receivables	$	$	$	$
Sales	780.00	670.00	910.00	1,050.00
Cash collections				
Ending receivables	$	$	$	$

b. Accounts receivable at the beginning of the year are $295. Litzenberger has a 60-day collection period. Calculate cash collections in each of the four quarters by completing the following

	Q1	Q2	Q3	Q4
Beginning receivables	$	$	$	$
Sales	780.00	670.00	910.00	1,050.00
Cash collections				
Ending receivables	$	$	$	$

c. Accounts receivable at the beginning of the year are $295. Litzenberger has a 30-day collection period. Calculate cash collections in each of the four quarters by completing the following:

	Q1	Q2	Q3	Q4
Beginning receivables	$	$	$	$
Sales	780.00	670.00	910.00	1,050.00
Cash collections				
Ending receivables	$	$	$	$

Problem 3.27

Lewellen Products has projected the following sales for the coming year:

	Q1	Q2	Q3	Q4
Sales	$890	$970	$930	$1,030

Sales in the year following this one are projected to be 10 percent greater in each quarter.

a. Calculate payments to suppliers assuming that Lewellen places orders during each quarter equal to 30 percent of projected sales for the next quarter. Assume that the company pays immediately.

	Q1	*Q2*	*Q3*	*Q4*
Payment of accounts	$	$	$	$

b. Calculate payments to suppliers assuming a 90-day payables period.

	Q1	*Q2*	*Q3*	*Q4*
Payment of accounts	$	$	$	$

c. Calculate payment to suppliers assuming a 60-day payables period.

	Q1	*Q2*	*Q3*	*Q4*
Payment of accounts	$	$	$	$

Chapter 29 (Total points: 36 points)

Problem 1.29

Kyoto Joe Inc. sells earnings forecasts for Japanese securities. Its credit terms are 5/5, net 60. Based on experience, 70 percent of all customers will take the discount.

a. What is the average collection period for Kyoto Joe?

b. If Kyoto Joe sells 2,240 forecasts every month at a price of $2,100 each, what is its average balance sheet amount in accounts receivable?

Problem 2.29

Essence of Fragrances Ltd. sells 8,700 units of its perfume collection each year at a price per unit of $730. All sales are on credit with terms of 2.0 / 15, net 60. The discount is taken by 80 percent of the customers.

a. Calculate the average collection period.

b. What is the receivables turnover?

c. What is the amount of the company's average receivables?

Problem 3.29

Sunshine Corp. is a wholesaler that stocks engine components and test equipment for the commercial aircraft industry. A new customer has placed an order for eight high-bypass turbine engines, which increase fuel economy. The variable cost is $1.8 million per unit, and the credit price is $2.075 million each. Credit is extended for one period, and based on historical experience, payment for about 1 out of every 250 such order is never collected. The required return is 2.1 percent per period.

a-1. Assuming that this is a one-time order, what is the NPV per unit?

a-2. Should the order be filled?

b. What is the break-even probability of default for a one-time order?

c-1. Suppose that customers who don't default become repeat customers and place the same order every period forever. Further assume that repeat customers never default. What is the NPV per unit?

c-2. Should the order be filled if the customer will become a repeat customer?

c-3. What is the break-even probability of default assuming that the customer will become a repeat customer?

Problem 4.29

The Harrington Corp. is considering a change in its cash-only policy. The new terms would be net one period. The required return is 2.5 percent per period. Consider the following additional information.

	Current Policy	New Policy
Price per unit	$ 83	$ 85
Cost per unit	$ 43	$ 43
Unit sales per month	3,950	4,100

Calculate the NPV of the decision to change credit policies.

Problem 5.29

The Harrington Corp. is considering a change in its cash-only policy. The new terms would be net one period. The required return is 2.5 percent per period. Consider the following additional information.

	Current Policy	New Policy
Price per unit	$ 89	$ 91
Cost per unit	$ 49	$ 49
Unit sales per month	4,850	4,950

What is the break-even quantity for the new credit policy?

Problem 6.29

Happy Times currently has an all-cash policy. It is considering making a change in the credit policy by going to terms of net 30 days.

	Current Policy	New Policy
Price per unit	$ 385	$ 392
Cost per unit	$ 320	$ 324
Unit sales per month	1,285	1,485

The required return is 1.85 percent per month.

What is the break-even price per unit under the new credit policy?

Chapter 13 (Total points:15)

Problem 1.13

Star Inc. has a target debt–equity ratio of 0.81. Its WACC is 10.5 percent, and the tax rate is 34 percent.

a. If Star's cost of equity is 15.00 percent, what is its pretax cost of debt?

b. If instead you know that the aftertax cost of debt is 6.90 percent, what is the cost of equity?

Problem 2.13

An all-equity firm is considering the following projects:

Project	Beta	Expected Return
W	0.76	10.1%
X	0.91	10.3
Y	1.18	11.8
Z	1.52	15.2

The T-bill rate is 6 percent, and the expected return on the market is 11 percent.

a. Which projects have a higher expected return than the firm's 11 percent cost of capital?

b. Which projects should be accepted?

c. Which projects would be incorrectly accepted or rejected if the firm's overall cost of capital was used as a hurdle rate?

Chapter 16 (Total points: 25)

Problem 1.16

Money Inc. has no debt outstanding and a total market value of $122,000. Earnings before interest and taxes, EBIT, are projected to be $11,000 if economic conditions are normal. If there is strong expansion in the economy, then EBIT will be 22 percent higher. If there is a recession, then EBIT will be 52 percent lower. Money is considering a $49,000 debt issue with an 3.00 percent interest rate. The proceeds will be used to repurchase shares of stock. There are currently 2,000 shares outstanding. Ignore taxes for this problem.

a. Calculate earnings per share, EPS, under each of the three economic scenarios before any debt is issued. Also calculate the percentage changes in EPS when the economy expands or enters a recession.

b. Calculate earnings per share, EPS, under each of the three economic scenarios assuming the company goes through with the recapitalization. Also calculate the percentage changes in EPS when the economy expands or enters a recession assuming that Money goes through with recapitalization.

Problem 2.16

GreatWest Corp. is comparing two different capital structures, an all-equity plan (Plan I) and a levered plan (Plan II). Under Plan I, GreatWest would have 135,000 shares of stock outstanding. Under Plan II, there would be 90,000 shares of stock outstanding and $1.350 million in debt outstanding. The interest rate on the debt is 10.00 percent and there are no taxes.

a. If EBIT is $243,000, what are the EPS estimates for the two plans?

b. If EBIT is $1,134,000, what are the EPS estimates for the two plans?

c. What is the break-even EBIT?